### ERNEST NADEL Ph.D.

LECG, LLC 2000 Powell Street, Suite 600 Emeryville, CA 94608 Tel. (510) 985-6898 Fax (510) 653-9898

#### **EDUCATION**

Ph.D., International Economics, UNIVERSITY OF CHICAGO, 1969 M.A., Economics, UNIVERSITY OF CHICAGO, 1967 B.A., Economics and Political Science, MCGILL UNIVERSITY, Montreal, Canada, 1964

## PRESENT POSITION

LECG, LLC, 1997-present Principal

## Areas of Specialization

Maritime Economics

Container, tug-barge services
Policy options in regulation
Regulation of rates, services, carrier agreements
Costs, capacity, cargo flows, forecasting
Port feasibility

Rail Economics

Mergers and Acquisitions Regulation of services

Petroleum Economics

Oil Pricing, netback models, indexed prices

Royalty contracts

Crude, product, LNG tankers

Litigation Support

Antitrust violation

Asset and business valuation

Breach of contract damages

## PRIOR PROFESSIONAL EXPERIENCE

# BARAKAT & CHAMBERLIN, INC., 1986-April 1997

Principal

Performed and directed economic analysis, litigation support, valuation, pricing and market assessment studies for public and private clients in the maritime, petroleum, cable television and other industries. Prepared and delivered expert witness testimony on U.S. maritime regulation issues, assessments of economic damages, antitrust, and valuation issues. Advised State government in the U.S. and Provincial government in Canada regarding the design and audit of petroleum royalty contracts.

# MANALYTICS, INC., 1975-1986

**Manager of Economics** 

International economics specialist for a firm consulting in the transportation area covering maritime and rail. Led studies in trade forecasting for public and private clients, economic and financial feasibility studies for carriers, shippers and ports. Prepared and presented expert testimony for submission before numerous administrative forums.

# UNIVERSITY OF CALIFORNIA, BERKELEY, 1968-1975

### **Assistant Professor of Economics**

Instruction and research in introductory economics, international economic relations, monetary economics, and macroeconomic theory.

#### **PUBLICATIONS**

- "International Trade and Capital Mobility." The American Economic Review, Vol. 61(3), Part 1, June 1971.
- "Capital Goods, Intermediate Goods, and the Volume of Trade." The Canadian Journal of Economics. May 1971.
- "Testing the Forecasters." *Journal of Maritime Law and Commerce*. October 1976.
- "Forces Shaping International Maritime Transport." The World Economy. March 1984. Outlook for the Liberalization of Maritime Transport. With Elliot Schrier and Bertram Rifas. London: Trade Policy Research Center, 1985.
- "The Cost of Cargo Preference to the DoD", June 1, 1993 to May 31, 1994, a Report for the U.S. Military Sealift Command, July 7, 1995.

#### **PRESENTATIONS**

- "International Trade and Capital Mobility." 1968 meeting of the Econometric Society, Evanston, Illinois.
- "Freight Rates vs. Costs in the Guam Liner Trade." Dec. 1994, Presentation to the Guam Chamber of Commerce

## EXPERT WITNESS TESTIMONY

2002-03 Provided written testimony on behalf of the Territory of Guam in Federal Maritime Commission Docket No. 89-26, on calculations of the reparation amounts owed by American President Lines and Sea-Land.

2002 Provided Verified and Verified Reply Statements on behalf of the Territory of Guam regarding the proper methodology to be used in Surface Transportation Board Docket WCC-101.

1998-2000 Provided written testimony on behalf of the Territory of Guam in GovGuam's successful Appeal of the ALJ's decision in Federal Maritime Commission Docket No. 89-26.

1999-2000 Fleming Companies and Atlantic Pacific International, Inc. Provided deposition and oral testimony in a civil antitrust case in United Stated District Court for Hawaii,

regarding a tied sale in the container service of Sea-Land between California and Hawaii. (Civil No. 98-00369 DAE)

1997 Provided written affidavit in support of the complaint of the Territory of Guam concerning rates in the U.S. Mainland-Guam container trade in Doecket WCC-101 at the Surface Transportation Board.

1996 - 1997 Cotchet & Pitre. Provided written and oral testimony in an Arbitration regarding breach of contract, fraud and breach of fiduciary responsibility in a dispute involving a three-year venture capital start-up of a managed health care imaging carve-out.

1996 San Francisco Bar and Harbor Pilots, State of California Administrative proceeding. Provided oral testimony on behalf of pilots concerning productivity of pilots, and history of pilot actual revenues in nominal and real terms.

1990-1996 Federal Maritime Commission Docket No. 89-26. Territory of Guam. Provided written direct and rebuttal and oral testimony regarding rate levels in the U.S. mainland-Guam liner trade.

1985-1995 State of Alaska. Provided written direct and rebuttal and oral testimony and extensive litigation support and settlement offer analyses to the State Department of Revenue and to the State Attorney General in several administrative hearings for the State's audit of oil companies for severance tax and income tax purposes.

1995 San Francisco Bar and Harbor Pilots, State of California Administrative proceeding. Provided oral testimony on behalf of pilots concerning productivity of pilots, history of pilot actual revenues in nominal and real terms, and comparable pilot earnings elsewhere.

1989 Federal Maritime Commission Docket Nos. 88-5, 88-14, 88-18, 89-12. Prepared testimony for non-vessel-operating common carriers (NVOCCs) to measure the extra costs and lost business suffered by the plaintiffs as a result of illegal tariff discrimination by ocean liner operators (the "50-mile rule").

1989 Federal Maritime Commission Docket No. 88-15. Provided testimony on behalf of California Shipping Lines, Inc., regarding damages resulting from a breach of contract between a carrier, Yang Ming Marine Transport Corporation, and an NVOCC, who was denied a service contract.

1988 Maritime Administration Docket No. S-801. Provided direct and rebuttal testimony on behalf of Matson navigation Company regarding a Section 805(a) application by American President Lines to serve Hawaii. Testimony dealt with the public policy consequences and unfairness to Matson of approving APL's application.

1983 Federal Maritime Commission. Provided testimony in support of an application for approval of Agreement 9973-9 by Johnson ScanStar. Analyzed the size, economic conditions, and needs of the trade, and the role of a joint service in the trade.

1983 Maritime Subsidy Board Docket No. S-746 Sub 1. Provided testimony for Ragan & Mason, representing Sea-Land Service, Inc., analyzing the cargo and capacity

adequacy issues on Trade Route 29.

1982 Federal maritime Commission Docket No. 81-74. Provided testimony on issues involved in an application by the Japan-4 (J Line, K Line, Mitsui, and Y-S Line) for additional capacity by replacing old, small ships with new, big ships.

1982 Federal Maritime Commission Docket No. 80-22. Provided theoretical and empirical testimony evaluating the currency adjustment factor (CAF) in the Pacific Westbound Conference tariff and evaluating the suit by International Paper (IP) claiming that the ad valorem CAF discriminates against IP.

1982 Federal Maritime Commission. Provided testimony on FMC Agreement 9973-8 regarding Johnson ScanStar (JSS) operations. Described the trades in which JSS then participated and in which it proposed to participate and analyzed the likely economic impacts and the expected transportation and public needs that the service authority modifications proposed to satisfy.

1981 Federal Maritime Commission Docket No. 81-27. Provided testimony on the impact on competition of the proposed joint service operations of Bank and Savill Line, Ltd., and The Shipping Corporation of New Zealand in the US Gulf-Australian liner trade.

1981 Federal Maritime Commission Docket No. 81-10. Provided direct testimony, rebuttal testimony, and surrebuttal testimony on the appropriate rate of return for regulated carriers in the US-Puerto Rico and Virgin Island trades and on the forecasts of carrier rates of return made by other witnesses.

1981 Private client, Superior Court, County of Sacramento, Docket No. 271770. Provided testimony evaluating the economic cost of the delay of graduation from university.

1980 Federal Maritime Commission Docket No. 78-32. Provided testimony on the economic effects of Pacific Westbound Conference policy regarding transshipments of Portland cargo through Seattle.

## REGULATORY AND LITIGATION SUPPORT

2005 Provided support to the Government of Guam for Oral Hearings regarding the proper methodology to be used in Surface Transportation Board Docket WCC-101.

2004-05 Province of Newfoundland. Retained to assist the Province in its negotiations on a royalty contract with producers, focusing on how to value the oil for use in calculating royalties for the Terra Nova project.

1998-1999 US Joint Traffic Management Organization. Evaluated the claims by a tug-barge carrier operating in the Seattle-Aleutian Islands trade, alleging damages suffered from unexpectedly low cargo levels in the Adak trade.

1997-1998 State of Hawaii, Division Consumer Advocacy. Prepared an evaluation of the inter-island tug-barge service of Young Brothers, Inc. Made recommendations for improving the service so as to lower costs, raise profitability, lower rates, and improve service to shippers.

1997-1998 Confidential. Retained, in a class action litigation, to examine the operation, membership, and excess profits of a price-fixing cartel manufacturing and selling an industrial chemical in the U.S. market.

1997 U.S. Department of Defense. Retained by the Joint Traffic Management Office to evaluate alternative contractual arrangements for the pricing of international maritime container transportation services in the event of a Stage I, Stage II, or Stage III military emergency.

1996 Province of Newfoundland. Retained to assist in the Province's negotiations on a royalty contract with producers, focusing on how to value the oil for use in calculating royalties for the Hibernia project.

1996 Confidential. Retained to assist in settlement negotiations with several producers in a class action involving an antitrust violation among producers in a major U.S. product market, where publicly discussed damage estimates exceed \$100 Million.

1991-1996 State of Alaska. Provided economic and litigation support to the Department of Law in its evaluation of the Exxon Oil Spill settlement and in its allocation of the monies in the Exxon Valdez Oil Spill Fund to provide remediation through the purchase of forest and other lands to be held free from economic development.

1992 Crowley Maritime. Provided expert support for Crowley's application for a tugboat franchise for Port Everglades, Florida.

1991 Preston, Rouvelas & Meeds. Retained to analyze and provide litigation support involving a claim before the Federal Maritime Commission (Docket No. 90-16) concerning alleged discrimination against a west coast port terminal operator.

1990 Blasingame, Burch, Garrard & Bryant. Developed an estimate of market share held by a manufacturer in the sale and use of asbestos at various sites in Texas over the period 1962 to 1972 for use in the allocation of total damages among defendants.

1989 State of Alaska. Provided the Department of Law with various analyses in support of the damage claims against Exxon Corp. resulting from the Exxon Valdez oil spill of March 24, 1989.

1989 Province of Newfoundland. Retained to assist the Province in its negotiations on a royalty contract with producers, focusing on how to value the oil for use in calculating royalties for the Hibernia project.

1989 Alborg & Dictor. Retained to prepare analysis and testimony in support of litigation concerning the evaluation of a railroad easement in Santa Clara County, California.

1987 Barker & McKenzie. Assessed economic damages to a distributor and manufacturer of orange-juicing equipment resulting from a termination of the distributor's contract. Analyzed the manufacturer's financial records, depositions, and other discovery material, including the details of a bulk asset sale.

1986 Lempres & Wulfsberg. Retained in connection with a lawsuit filed by B&T Hydraulics, Inc. against Eaton Corporation. Prepared a critique of the plaintiff's calculation of alleged economic damage. Developed economic intelligence regarding various firms' market share and sales levels in California and the US.

1986 Lillick, McHose & Charles. Retained in the matter of Delta Steamship Lines vs. The City and County of San Francisco. Analyzed Delta's alleged economic damages suffered as a result of a pier fire, focusing on a review of the inventory of the quantity and value of the items involved.

1985 Federal Maritime Commission Docket No. S-749. Provided litigation support for Sea-Land Service, Farrell Lines and Prudential Lines regarding the capability of the U.S. flag liner fleet to carry forecasted levels of cargo flows on the inbound leg of Trade route 10 in 1990.

1983 Federal Maritime Commission Docket No. 82-54. Provided litigation support for Sea-Land Service, Inc. to determine whether seven Japanese charter and revenue pooling agreements are in compliance with the 1916 Shipping Act.

1983 United States House of Representatives. Provided economic analysis of HR 1878, 98th Congress (a bill that eventually became the Shipping Act of 1984) in hearings before the Committee on Judiciary Subcommittee on Monopolies and Commercial Law.

1983 Federal Maritime Commission. Provided litigation support for Kominers, Fort, Schlefer & Boyer, representing Delta Steamship Lines, Inc., regarding liner rates in the US Gulf Coast/Brazil trade and other US foreign trades.

1982 Weyerhauser Corp. In FMC Docket Nos. 82-1 and 82-10, analyzed the PMA CFS Fund Program Agreement and its economic effects on PMA employee benefit cost obligations to the ILWU and assessments obligations of PMA sectors, and recommended changes in the assessment system.

November 2005

#### ERNEST NADEL Ph.D.

LECG, LLC 2000 Powell Street, Suite 600 Emeryville, CA 94608 Tel. (510) 450-6745 Fax (510) 653-9898

Case 3:03-cv-00006-JWS

#### **EDUCATION**

Ph.D., International Economics, UNIVERSITY OF CHICAGO, 1969

M.A., Economics, UNIVERSITY OF CHICAGO, 1967

B.A., Economics and Political Science, MCGILL UNIVERSITY, Montreal, Canada, 1964

### PRESENT POSITION

LECG, LLC, 1997-present Principal

## Areas of Specialization

## Maritime and Rail Economics

Policy options in regulation

Regulation of rates, services, and carrier agreements

Cost and capacity analyses

Worldwide cargo flow analysis and forecasting

Port feasibility analysis

## Litigation Support and Economic Analysis

Asset and business valuation, breach of contract damages, antitrust violation

Applied microeconomic theory, forecasting, cost models, price benchmarking

#### Petroleum Economics

Oil Pricing, netback models, indexed prices, royalty contracts

Crude, product and LNG tanker economics: rates, costs, carriage

#### PRIOR PROFESSIONAL EXPERIENCE

## BARAKAT & CHAMBERLIN, INC., 1986-April 1997 **Principal**

Performed and directed economic analysis, litigation support, valuation, pricing and market assessment studies for public and private clients in the maritime, petroleum, cable television and other industries. Prepared and delivered expert witness testimony on U.S. maritime regulation issues, assessments of economic damages, antitrust, and valuation issues. Advised State government in the U.S. and Provincial government in Canada regarding the design and audit of petroleum royalty contracts.

## **MANALYTICS, INC., 1975-1986** Manager of Economics

International economics specialist for a firm consulting in the transportation area covering maritime and rail. Led studies in trade forecasting for public and private clients, economic and financial feasibility studies for carriers, shippers and ports. Prepared and presented expert testimony for submission before numerous administrative forums.

## UNIVERSITY OF CALIFORNIA, BERKELEY, 1968-1975 Assistant Professor of Economics

Instruction and research in introductory economics, international economic relations, monetary economics, and macroeconomic theory.

#### **PUBLICATIONS**

"International Trade and Capital Mobility." The American Economic Review, Vol. 61(3), Part 1. June 1971.

"Capital Goods, Intermediate Goods, and the Volume of Trade." The Canadian Journal of Economics. May 1971.

"Testing the Forecasters." Journal of Maritime Law and Commerce. October 1976.

"Forces Shaping International Maritime Transport." The World Economy. March 1984.

Outlook for the Liberalization of Maritime Transport. With Elliot Schrier and Bertram Rifas. London: Trade Policy Research Center, 1985.

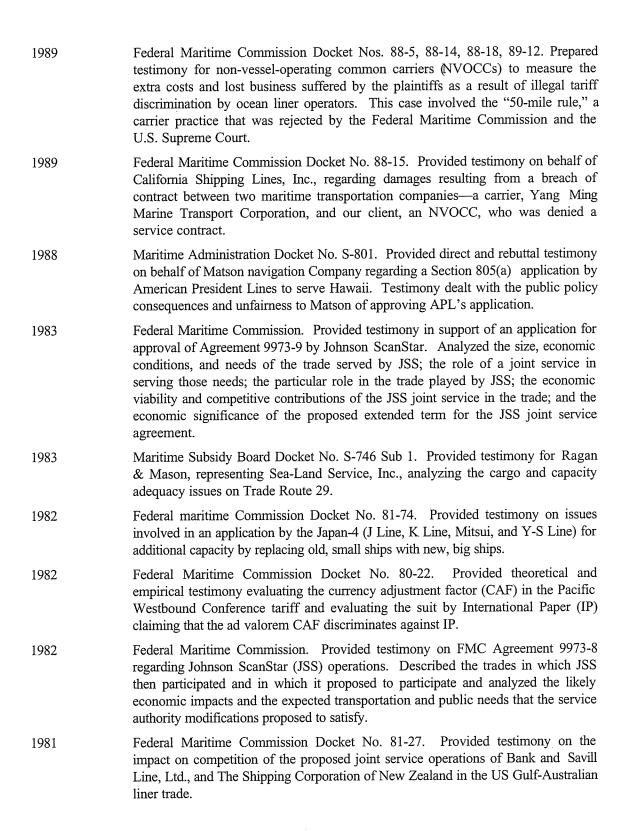
The Cost of Cargo Preference to the DoD, June 1, 1993 to May 31, 1994, a Report for the U.S. Military Sealift Command, July 7, 1995.

#### **PRESENTATIONS**

"International Trade and Capital Mobility." 1968 meeting of the Econometric Society, Evanston, Illinois.

# EXPERT WITNESS TESTIMONY

1999-2000	Provided deposition and oral testimony in a civil antitrust case in Hawaii in Federal Court regarding a tied sale in the container service of Sea-Land between California and Hawaii. (Sea-Land Service, Inc. v. Atlantic Pacific International, Inc., et al. Civil No. 98-00369 DAE, United Stated District Court for Hawaii.)
1998-2000	Provided written testimony on behalf of the Territory of Guam in GovGuam's successful Appeal of the ALJ's decision in Federal Maritime Commission Docket No. 89. Also prepared calculations of the reparation amounts owed by American President Lines and Sea-Land resulting from FMC's final decision on liability.
1999-2000	Fleming Companies and API. Provided deposition and oral testimony in a civil antitrust case regarding a tied sale in the container service of Sea-Land between California and Hawaii.
1998-1999	US Joint Traffic Management Organization. Provided written expert report critical of the claims by a tug-barge carrier operating in the Seattle-Aleutian Islands trade; carrier alleged damages suffered from unexpectedly low cargo levels.
1998	State of Hawaii, Division Consumer Advocacy. Prepared an evaluation of the interisland tug-barge service of Young Brothers, Inc. Made recommendations for improving the service so as to lower costs, raise profitability, lower rates, and improve service to shippers.
1996 - 1997	Cotchet & Pitre. Provided written and oral testimony in an Arbitration regarding breach of contract, fraud and breach of fiduciary responsibility in a dispute involving a three-year venture capital start-up of a managed health care imaging carveout.
1996	San Francisco Bay and Harbor Pilots, State of California Administrative proceeding. Provided oral testimony on behalf of pilots concerning productivity of pilots, and history of pilot actual revenues in nominal and real terms.
1990-1996	Federal Maritime Commission Docket No. 89-26. Territory of Guam. Provided written direct and rebuttal and oral testimony regarding rate levels in the U.S. mainland-Guam liner trade.
1985-1995	State of Alaska. Provided written direct and rebuttal and oral testimony and extensive litigation support and settlement offer analyses to the State Department of Revenue and to the State Attorney General in several administrative hearings for the State's audit of oil companies for severance tax and income tax purposes.
1995	San Francisco Bay and Harbor Pilots, State of California proceedings. Provided oral testimony on behalf of pilots concerning productivity of pilots, history of pilot actual revenues in nominal and real terms, and comparable pilot earnings elsewhere.



1981	Federal Maritime Commission Docket No. 81-10. Provided direct testimony, rebuttal testimony, and surrebuttal testimony on the appropriate rate of return for regulated carriers in the US-Puerto Rico and Virgin Island trades and on the forecasts of carrier rates of return made by other witnesses.
1981	Private client, Superior Court, County of Sacramento, Docket No. 271770. Provided testimony evaluating the economic cost of the delay of graduation from university.
1980	Federal Maritime Commission Docket No. 78-32. Provided testimony on the economic effects of Pacific Westbound Conference policy regarding transshipments of Portland cargo through Seattle.

## REGULATORY AND LITIGATION SUPPORT

REGULATORY AND LITIGATION SUPPORT		
1997 - 1998	State of Hawaii. Retained by Division of Consumer Advocacy to evaluate a regulated shipping operation in the state of Hawaii and make recommendations to improve operations and increase profitability.	
1997-1998	Confidential. Retained, in a class action litigation, to examine the operation, membership, and excess profits of a price-fixing cartel manufacturing and selling an industrial chemical in the U.S. market.	
1998	Government of Guam. Retained to support a petition, to the Federal Court of Appeals, regarding the Federal Maritime Decision in Docket 89-26, which decision found in favor of the government of Guam's complaint, for which Dr. Nadel was the expert economic witness. The appeal concerns the insufficiency of the award of reparations for damages experienced by shippers because of the unreasonably high freight rates in the Guam trade.	
1997	U.S. Department of Defense. Retained by the Joint Traffic Management Office to evaluate alternative contractual arrangements for the pricing of international maritime container transportation services in the event of a Stage I, Stage II, or Stage III military emergency.	
1996 - 1997	Province of Newfoundland. Retained to assist in the Province's negotiations on a royalty contract with producers, focusing on how to value the oil for use in calculating royalties for the Tera Nova project.	
1996	Confidential. Retained to assist in settlement negotiations with several producers in a class action involving an antitrust violation among producers in a major U.S. product market, where publicly discussed damage estimates exceed \$100 Million.	
1991-1996	State of Alaska. Provided economic and litigation support to the Department of Law in its evaluation of the Exxon Oil Spill settlement and in its allocation of the monies in the Exxon Valdez Oil Spill Fund, which are used, in part, to provide remediation through the purchase of forest and other lands to be held free from economic development.	

1992	Crowley Maritime. Provided expert support for Crowley's application for a tugboat franchise for Port Everglades, Florida.
1991	Preston, Rouvelas & Meeds. Retained to analyze and provide litigation support involving a claim before the Federal Maritime Commission (Docket No. 90-16) concerning alleged discrimination against a west coast port terminal operator.
1990	Blasingame, Burch, Garrard & Bryant. Developed an estimate of market share held by a manufacturer in the sale and use of asbestos at various sites in Texas over the period 1962 to 1972 for use in the allocation of total damages among defendants.
1989	State of Alaska. Provided the Department of Law with various analyses in support of the damage claims against Exxon Corp. resulting from the Exxon Valdez oil spill of March 24, 1989.
1989	Province of Newfoundland. Retained to assist the Province in its negotiations on a royalty contract with producers, focusing on how to value the oil for use in calculating royalties for the Hibernia project.
1989	Alborg & Dictor. Retained to prepare analysis and testimony in support of litigation concerning the evaluation of a railroad easement in Santa Clara County, California.
1987	Barker & McKenzie. Assessed economic damages to a distributor and manufacturer of orange-juicing equipment resulting from a termination of the distributor's contract. Analyzed the manufacturer's financial records, depositions, and other discovery material, including the details of a bulk asset sale.
1986	Lempres & Wulfsberg. Retained in connection with a lawsuit filed by B&T Hydraulics, Inc. against Eaton Corporation. Prepared a critique of the plaintiff's calculation of alleged economic damage. Developed economic intelligence regarding various firms' market share and sales levels in California and the US.
1986	Lillick, McHose & Charles. Retained in the matter of Delta Steamship Lines vs. The City and County of San Francisco. Analyzed Delta's alleged economic damages suffered as a result of a pier fire, focusing on a review of the inventory of the quantity and value of the items involved.
1985	Federal Maritime Commission Docket No. S-749. Provided litigation support for attorneys for Sea-Land Service, Farrell Lines and Prudential Lines regarding the capability of the U.S. flag liner fleet to carry forecasted levels of cargo flows on the inbound leg of Trade route 10 in 1990.
1983	Federal Maritime Commission Docket No. 82-54. Provided litigation support for Ragan & Mason, attorneys for Sea-Land Service, Inc. on the issues in the Order of Investigation in FMC Docket No. 82-54, to determine whether seven Japanese charter and revenue pooling agreements are in compliance with the 1916 Shipping Act.

1983

United States House of Representatives. Provided support during hearings before the Committee on Judiciary Subcommittee on Monopolies and Commercial Law on a bill that eventually became the Shipping Act of 1984. Performed an economic assessment and analysis of HR 1878, 98th Congress; concluded that it offers "enhanced opportunities for efficiency and countervailing assurances of a continued pro-competitive environment in the US liner trade."

1983

Federal Maritime Commission. Provided litigation support for Kominers, Fort, Schlefer & Boyer, representing Delta Steamship Lines, Inc., regarding liner rates in the US Gulf Coast/Brazil trade and other US foreign trades.

1982

Federal Maritime Commission Docket Nos. 82-1, 82-10. Requested by PMA council to prepare testimony in FMC Docket Nos. 82-1 and 82-10. Testimony (1) analyzed the PMA CFS Fund Program Agreement and its economic effects on PMA employee benefit cost obligations and assessments; (2) analyzed the likely impact on the ILWU as a group and PMA as a group and on individual PMA sectors and obligations; and (3) reviewed the assessment system changes since 1979 and analyzed how the CFS Program Fund Agreement relates to those changes.

March, 2002

## Ernest Nadel, Principal, LECG, LLC

Ernest Nadel is a Principal at LECG, LLC, specializing in transportation, international trade, antitrust, and oil and gas issues. He has 30 years of experience in economic consulting, mainly to the surface (ocean and rail) transportation industry and the oil and gas industry.

Dr. Nadel is a renowned expert on the economics and regulation of U.S. ocean liner and tug-and-barge transportation, covering such issues as cost of service, rate reasonableness and rate overcharges, cargo forecasting, antitrust, intra-carrier agreements, and service efficiencies.

Dr. Nadel has testified on behalf of government agencies, shippers, ocean carriers, rail carriers, ports, pilots, and carrier conferences in more than a score of cases before the Federal Maritime Commission, the Maritime Subsidy Board, the Interstate Commerce Commission, the Surface Transportation Board, and in arbitration proceedings. He has led maritime studies on contract to major container carriers and container lessors, and on contract to such government entities as the U.S. Maritime Administration, the States of Hawaii and Alaska and the Province of Newfoundland, and the Military Sealift Command (MSC), the Joint Traffic Management Organization (JTMO), and the Military Transport Management Command (MTMC) of the U.S. Department of Defense (DOD).

Dr. Nadel has led projects on rail mergers and traffic diversions, and has consulted on projects on costs and capacity to move coal, and costs and capacity to move international maritime containers.

Dr. Nadel has also provided expertise on oil tanker matters, market and netback valuations of oil and natural gas, and has advised the Alaska State and Newfoundland Province governments on the design and valuation of royalty contracts.

Dr. Nadel holds a BA in economics, and won the Allen Oliver Gold Medal in economics, from McGill University in 1964, and holds an MA and a PhD in Economics from the University of Chicago.

Dr. Nadel was Assistant Professor of Economics at the University of California, Berkeley, from 1968 to 1975. He was the senior economist at Manalytics, Inc. for 11 years, and then a Principal with Barakat & Chamberlin in charge of their transportation practice for 11 years, before joining LECG in Spring, 1997.

Dr. Nadel is fluent in French and has been published in the American Economic Review, the Canadian Economic Review, and the Journal of Maritime Law and Commerce.

Dr. Nadel's current (November 2005) billing rate is \$345 per hour for deposition, preparation for deposition, and travel time to and from deposition.

November 2005